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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,122	11/09/2001	Paul Stypulkowski	11738.00024	2402
27581	7590	11/15/2005		
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604				
			EXAMINER SCHAETZLE, KENNEDY	
			ART UNIT 3766	PAPER NUMBER

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/045,122	STYPULKOWSKI, PAUL	
	Examiner	Art Unit	
	Kennedy Schaezle	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-46 is/are pending in the application.
- 4a) Of the above claim(s) 15-22, 45 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 26, 2005 has been entered.

Claim Objections

2. Claims 1 and 30 are objected to because of the following informalities: in claim 1, the limitation that the first electrical path is greater than the second electrical path on the last two lines of the claim is vague. The examiner will assume it was the applicant's intent to refer to the *length* of the first electrical path as being greater than the *length* of the second electrical path. Also in claim 1, the reference to the extension unit *including* a first electrical path between the implantable pulse generator and the extension unit implies that the first electrical path is a part of the extension unit. The examiner suggests deleting the phrase "the extension unit including" on line 10 of claim 1 to correct this error.

3. The word *changed* on line 2 of claim 30 is not in proper tense. Appropriate correction is required.

4. Claims 1-5, 7-14 and 23-44 are objected to because of the following informalities: numerous typographical errors appear throughout the claims due to the poor quality of the facsimile transmission, resulting in a vertical line of blanked out characters on each page. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 7-14 and 23-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The reference to at least one switch being configured to simultaneously trigger a plurality of electrodes cannot be found in the original disclosure.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Witte (Pat. No. 6,418,348).

Witte discloses an implantable pulse generator having a number of output sources that transmit electrical signals (col. 1, lines 5-14), an implantable electrode array (see Fig. 1) having a number of electrodes (14, 16), wherein the number of electrodes is greater than the number of output sources, an extension unit (collectively elements 20, 22, 24, 25) coupled between the pulse generator and the electrode array and configured to electrically connect the output sources to a portion of the electrodes, including a first electrical path between the implantable pulse generator and the extension unit (18) and a second electrical path between the extension unit and the

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electrode array (that portion of the conductive path lying between the output of extension unit and the electrodes 14), the first path being greater in length than the second path.

Regarding claim 5, absent any specific definition of the phrase "multi-dimensional array" in the disclosure, the electrodes of Witte are considered to form a multi-dimensional array given that the electrodes are ring electrodes and thus inherently occupy multi-dimensional space.

9. Claims 26-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Pohndorf et al. (Pat. No. 4,628,934).

Regarding claim 26, Pohndorf et al. disclose an extension unit (see Fig. 9) comprising input lines (381, 382), output lines (384-387), an array of programmable switches (401-404 and 406-409) connected between one input line and at least a portion of the output lines, wherein the switches are configured to simultaneously trigger a plurality of electrodes via control circuits 388 and 390, whereby the extension unit enables a distant implantable pulse generator having a number of output sources to be used with a lead having an electrode array with a number of electrodes greater than the number of output sources.

Regarding the term *distant*, since the applicant has not explicitly defined this term with clarity and precision in the original disclosure, the examiner is at liberty to interpret this term in its broadest reasonable sense. Merriam Webster defines the word *distant* to mean "...1a. separated in space." The pulse generator within the housing 218 is therefore considered to be distant from the spaced extension unit which resides outside of the housing.

Regarding claims 28 and 33, Pohndorf et al. teach that the switches in the programmable array may be bistable magnetic reed switches in col. 10, lines 12-24. Such relay switches are considered to retain their switching state after power has been removed. The devices are in microcircuit form as per col. 9, lines 53-68.

Concerning claims 38 and 39, the examiner considers any magnetically activated switch to be mechanically and magnetically adjustable. The term *adjustable* merely means capable of adjustment.

Regarding claims concerning wave shaping, the examiner considers the electrical paths containing the zener diodes shown in Figs. 3 and 3A to constitute an array of wave shaping circuits, with the diodes inherently shaping the amplitude and frequency of signals received on the output sources in order to attenuate high energy pulses and prevent damage to circuitry.

10. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by King (WO 97/37720).

King discloses an implantable pulse generator (the power source of the implantable system that provides stimulating current to the electrode array via conductors P1 and P2) having a number of output sources (connected to conductors P1, P2) that transmit electrical signals, an implantable electrode array (AS1, AS2, etc.) having a number of electrodes (10, 11, 12, etc.), wherein the number of electrodes is greater than the number of output sources, an extension unit (controller C1) coupled between the pulse generator and the electrode array and configured to electrically connect the output sources to a portion of the electrodes, including a first electrical path between the implantable pulse generator and the extension unit (P1, P2) and a second electrical path between the extension unit and the electrode array (the necessary conductors connecting the output of the controller to the various electrodes of the array such as CB3 or CB4), the first path being greater in length than the second path (the power source being located at a remote location with respect to the electrode array and controller).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kennedy Schaetzle whose telephone number is 571 272-4954. The examiner can normally be reached on M-W and F from 9:30 -6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on M-F at 571 272-6996. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KJS
November 7, 2005



KENNEDY SCHAEETZLE
PRIMARY EXAMINER